



U.S. ARMY®



US Army Corps
of Engineers®
Vicksburg District

VICKSBURG DISTRICT BRIEF

ASSOCIATION OF LEVEE BOARDS OF LOUISIANA

COL Michael C. Derosier
Commander, Vicksburg District

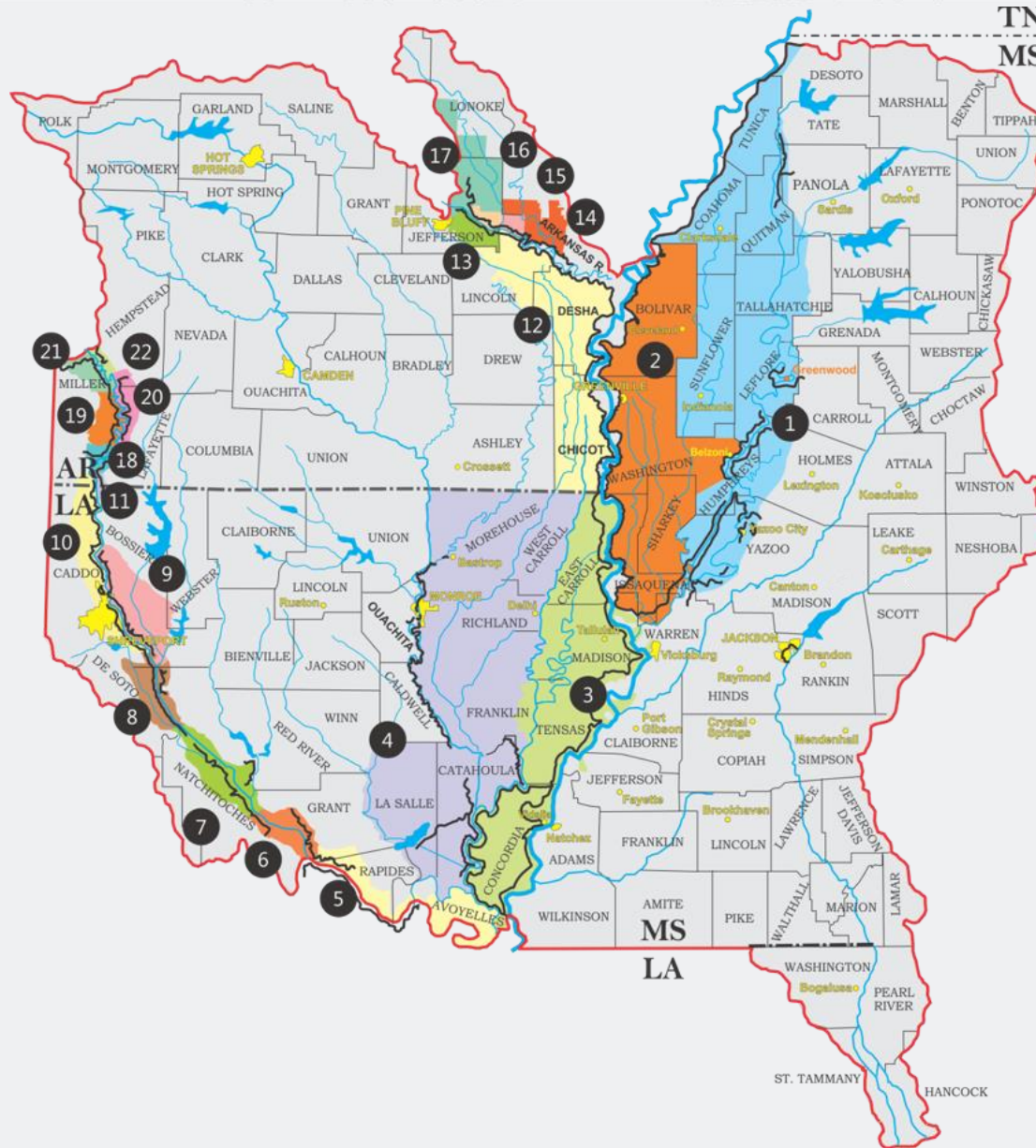
December 2018



1873-2018

145 YEARS OF SERVICE TO THE NATION

- 1 Yazoo-Mississippi Delta Levee District
- 2 Mississippi Levee District
- 3 Fifth Louisiana Levee District
- 4 Tensas Basin Levee District
- 5 Red River, Atchafalaya & Levee District
- 6 Nineteenth Louisiana Levee & Drainage District
- 7 Natchitoches Levee & Drainage District
- 8 Red River Levee & Drainage District
- 9 Bossier Levee District
- 10 Caddo Levee District
- 11 North Bossier Levee District
- 12 Southeast Arkansas Levee District
- 13 Frenchtown-Auburn Levee District
- 14 Farelly Lake Levee District
- 15 Jefferson County Levee District No. 3
- 16 New Gascony Levee District No. 1
- 17 Plum Bayou Levee District
- 18 Long Prairie Levee District
- 19 Garland Levee District
- 20 Red River Levee District No. 1
- 21 Miller County Levee District No. 2
- 22 Hempstead County Levee District No. 1

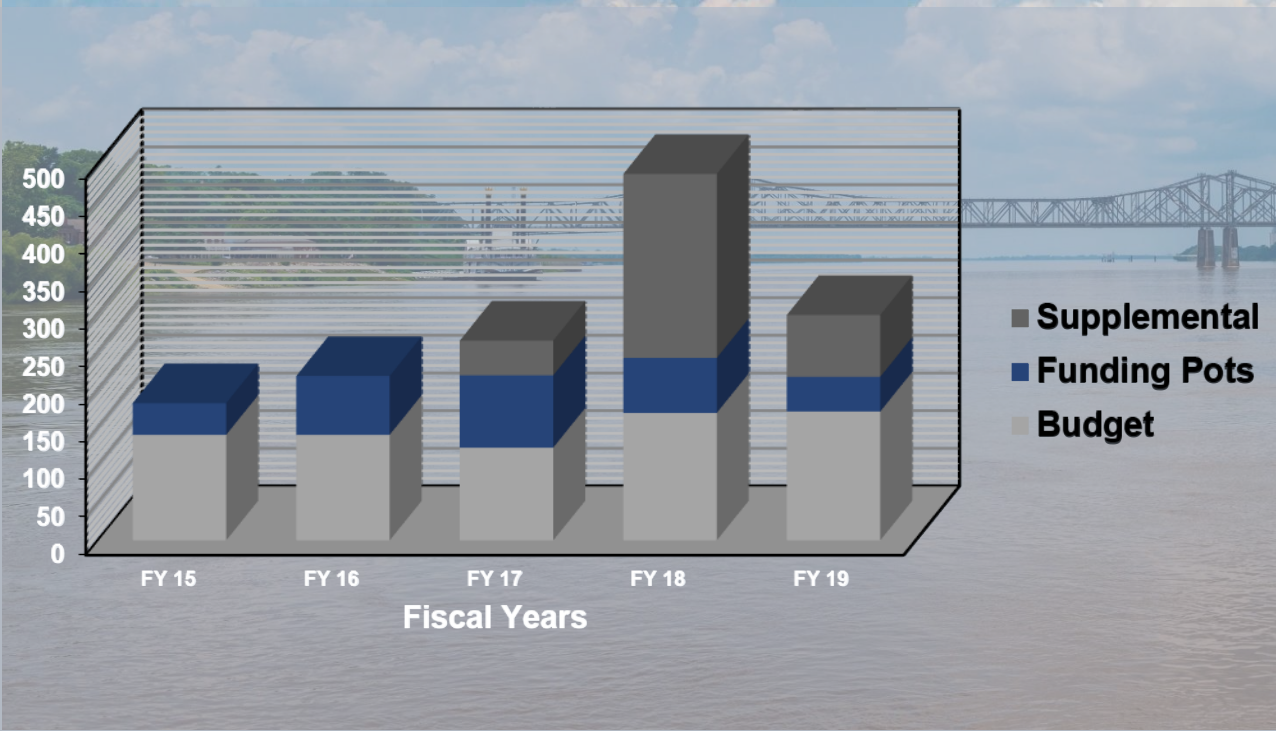


- ### Vicksburg District's Current Focus
- Channel Improvement
 - MRL Construction
 - Risk Communication
 - Columbia Lock and Dam
 - Monroe Floodwall
 - Red River Survey
 - **ARMOR ONE**

US Army Corps of Engineers • Vicksburg District

Vicksburg District Program

Fund Type	FY 15		FY 16		FY 17			FY 18			FY 19		
	Budget	Allocation	Budget	Allocation	Budget	Allocation	Supplemental	Budget	Allocation	Supplemental	Budget	Allocation	Supplemental
Regular	44,357	58,727	47,605	52,209	44,620	69,869	4,350	62,638	67,464	9,219	63,443	71,363	2,490
MR&T	95,605	123,410	92,676	123,410	78,220	149,177	39,143	106,740	174,515	234,679	107,517	145,410	79,680
Total	139,962	182,137	140,281	218,332	122,840	219,046	45,658	169,387	241,979	243,899	170,960	216,773	82,170



Vicksburg District Work in Louisiana

Navigation

- Dredging
- Lock Gate Repair
- Revetment / ARMOR ONE
- Navigation Extension Study
- Hydrologic Survey
- Channel Improvement
- Replace Dike Markers
- Stone Repairs

Flood Risk Management

- Repair Levee Slides
- Structure Maintenance
- Levee Enlargement/Repair
- Flood Control Lakes
- Floodwall Design/Repair

Water Supply

- Water Supply Studies
- Water Quality Projects
- Sedimentation efforts

Recreation

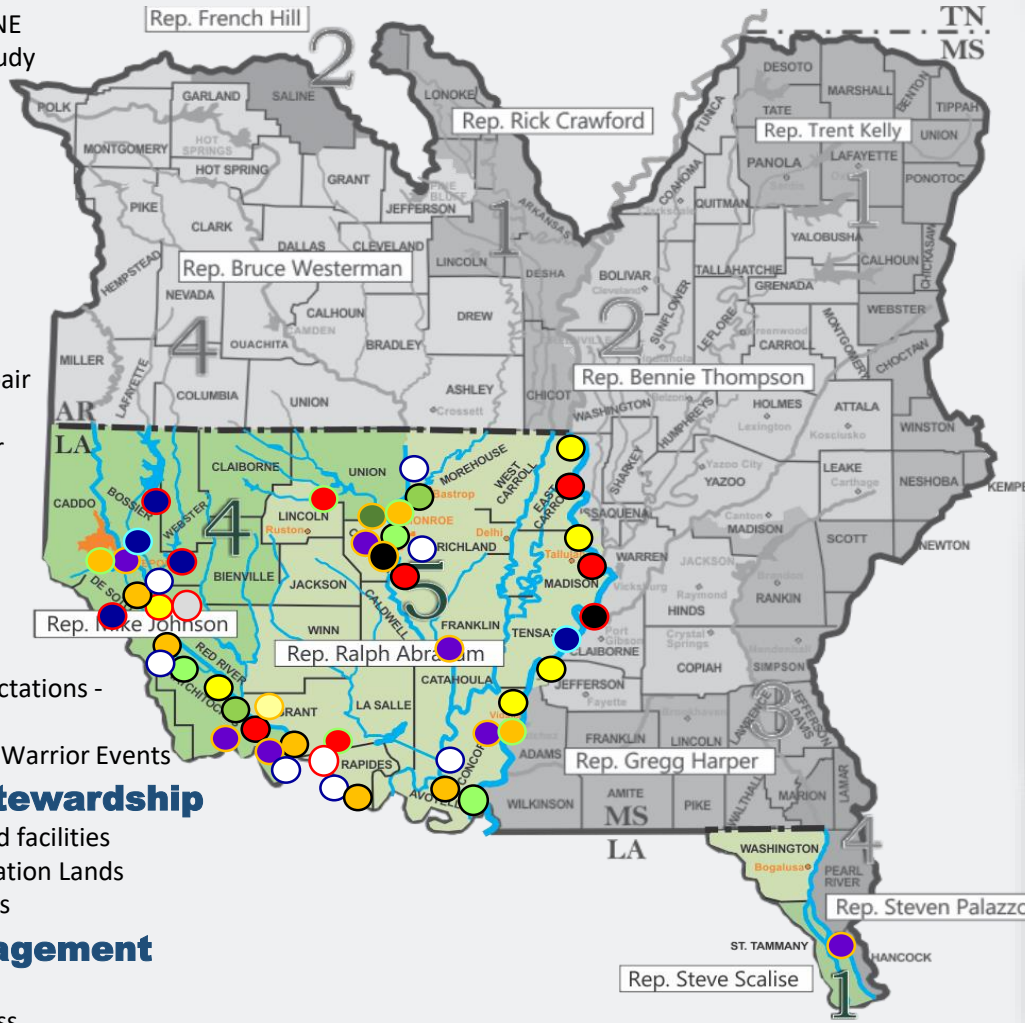
- Manage customer expectations - hours and services
- Disabled and Wounded Warrior Events

Environmental Stewardship

- Manage Corps lands and facilities
- Develop/Manage Mitigation Lands
- Manage invasive species

Emergency Management

- Maintain readiness
- Response team readiness



Snapshot of Vicksburg District Program

FY 18 Budget	169,387,000
Funding Pots*	72,592,000
MVK Allocation	241,979,000
Supplemental	243,899,000
Total Program	\$485,878,000

* Vicksburg District projects compete for funding pot (remaining items) dollars yearly

FY 19 Budget	170,960,000
Funding Pots*	46,400,000
MVK Allocation	216,773,000
Supplemental	82,170,000
Total Program	\$299,600,000





- **Local Sponsor Engagements**
Finalize system summaries, discuss system risk drivers, and develop risk communication strategy
- **Community Outreach**
Local community engagement by sponsor with Corps support

Risk Communication Process

- **Levee Inspections** (Routine and Periodic)
Gather levee system condition information
- **Levee Screening**
Incorporates consequence data and emergency management activities with condition information to prioritize action based on risk
- **Levee System Summaries**
Compile levee system information for presentation on NLD



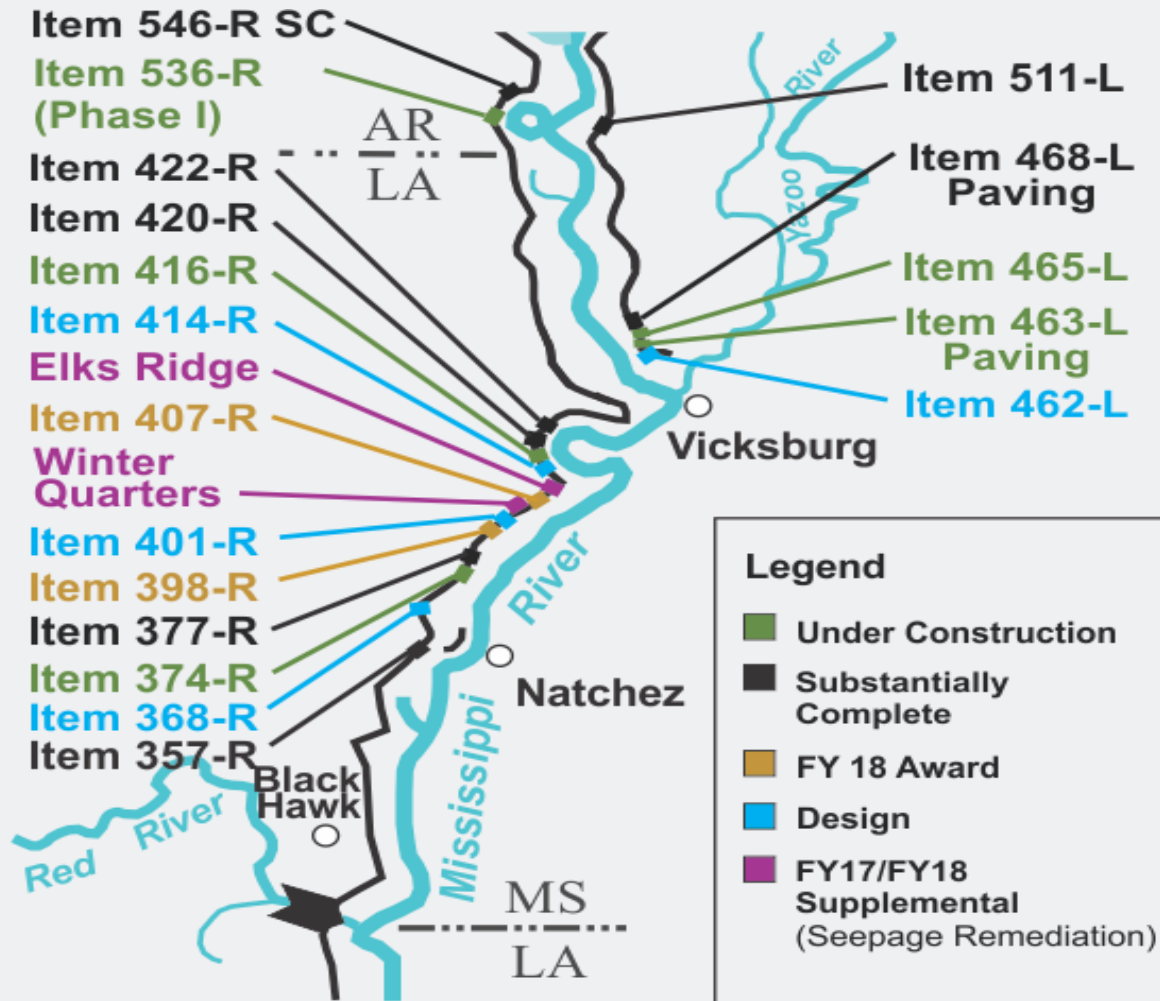
Levee Inspection Ratings

- 27 Louisiana Levee Segments
- Trends of Ratings
 - 2016 - 17 “U” Rated Levees; 10 “M” Rated Levees
 - 2017 - 13 “U” Rated Levees; 14 “M” Rated Levees
 - 2018 - 13 “U” Rated Levees; 14 “M” Rated Levees
- Levees
 - MR&T Levees - 8 Total
 - 3 Rated “U”
 - O&M Levees - 19 Total
 - 11 Rated “U”



Mississippi River Levee Construction

Regular Program



Item 536R Phase 1, Leland-Vaucluse

36% complete

Item 465L, Magna Vista-Brunswick

59% complete

Item 416R, Vidal-Elks Ridge

63% complete

Item 374R, Waterproof-Upper Concordia

New contractor in site 9% complete

Items 398R Phase 1, 407R and 411R SC

Awarded at the end of FY 18. All are preparing to begin construction.



Columbia Lock and Dam – Emergency Repairs

Vicksburg District's #1 Priority

Current Status: **Emergency**

3 July – Dam Safety Emergency declared for Columbia Lock and Dam

3 July – Navigation suspended

6 July – Public Notice

16 Aug – Massman Construction awarded emergency repair contract

Next Steps:

- Move drill and platform to the downstream end of the lock in order to better determine the magnitude of the voids in the area
- Revise schedule for repair work as we gain a better understanding of the extent of the damage on the downstream end of the structure
Current estimate requires a 2-4 month extension to the contract duration
- 12 Dec: Face-to-Face Meeting at the Columbia project office: briefings, Q&A and tour of construction site
- TBD January: Face-to-Face Meeting
- Continued updates through weekly storyboards and bi-weekly phone calls

Targets: Upper pool EL 49' Lower pool EL 36'

Impacts:

- Navigation suspended
- Bank caving upstream
- Water supply intakes upstream



Current Progress:

- 4" holes on the Gate Sill downstream of the Upstream Gate: 7/18
- 8" holes in the Upstream Apron: 4/9
- Wells: 9/17
- Massman began placing tremie concrete

For Official Use Only

Bank Stabilization for Monroe Floodwall



- Constructed in 1930's
- Part of MR&T Project
- Initially inspected for spalling and wall movement in 2012
- No significant movement detected by slope indicator pipes since 2013
- Stability analyses indicate low factors of safety
- Bank caving observed since 2016 high water event increases concern of stability failure towards the river
- Construction Contract Awarded Aug 2018
- Bank stabilization project scheduled for construction in Feb 2019 contingent on Columbia L&D

Hydraulic Modeling and Sedimentation Survey

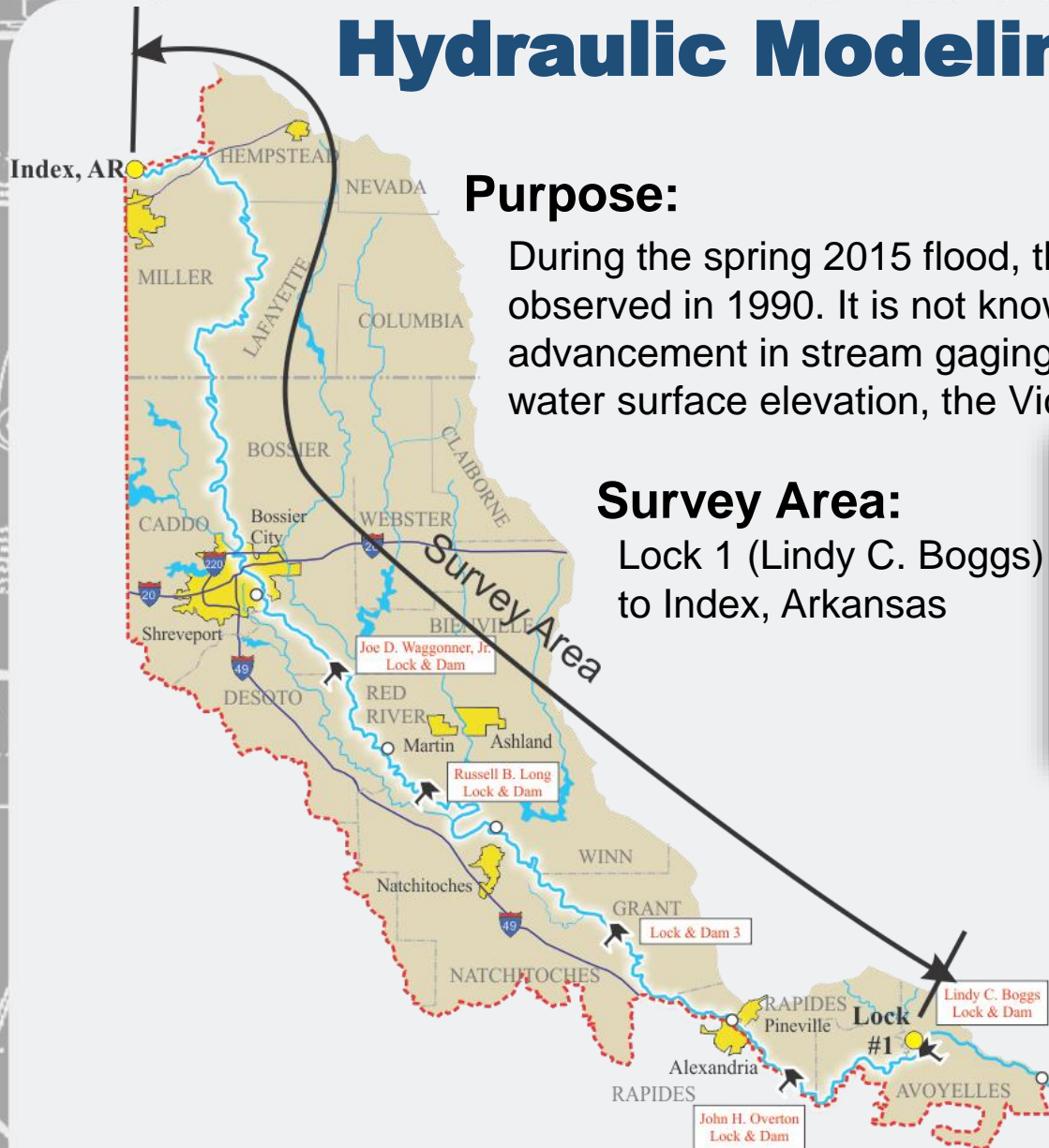
Lock 1 to Index, AR

Purpose:

During the spring 2015 flood, the water surface elevations were 3 feet higher than the same flows observed in 1990. It is not known if this is the result of sedimentation, urbanization, vegetation or advancement in stream gaging techniques. In order to determine the cause of the increase in water surface elevation, the Vicksburg District needed to conduct a sedimentation survey.

Survey Area:

Lock 1 (Lindy C. Boggs) to Index, Arkansas



ARMOR ONE UPDATE

Design Phase III and IV – Prototype and Testing

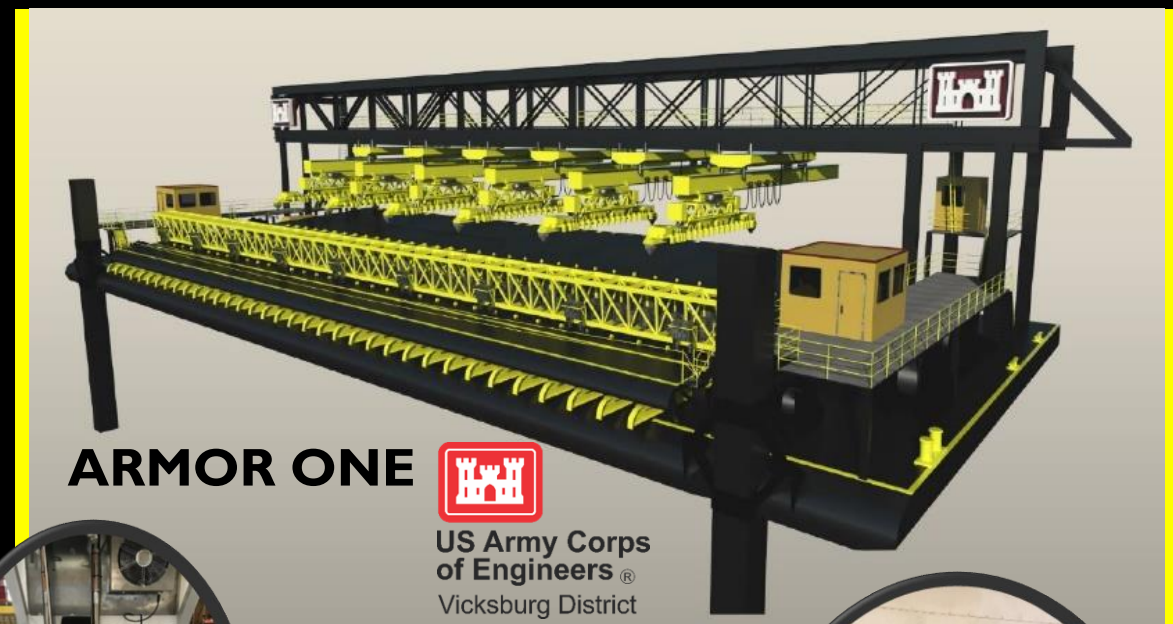
- Design Phase III complete April 2019.
- Design Phase IV kickoff October 2018.
- Design includes extensive prototyping, system integration and testing.

ARMOR ONE Improvements

- Safety - Will meet all current marine and robotic safety standards - American Bureau of Shipping Certified.
- Reliability - Designed with latest robotic technology using off the shelf components for ease of maintenance and repair.
- Efficiency – Greatly increased production time using robotic tie tools and improved mat lifting system.

Upcoming

- Sources sought announcement at International Work Boat Show in New Orleans 29 November 2018.
- Construction contract to award (Barge and Robotics Integration) in FY 19.
- Three year construction timeline with testing and delivery to the District in late 2022.



Prototype Robotic Tie Tool



Testing Electric Tie Tools on the MSU



U.S. ARMY®



**US Army Corps
of Engineers**®